

REMARKS

Applicants respectfully request reconsideration and allowance in view of the foregoing amendments and following remarks. By this amendment, claim 40 is amended to correct minor grammatical errors and claim 59 is amended to overcome an objection. In the Office Action, the Examiner rejected claims 40, 42, 45, 46, 56 and 57 under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent No. 5,844,287 to Hassan, et al. ("Hassan"). Claims 41, 43, 44, 47, 50-55, 58 and 68 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over combinations of Hassan and U.S. Patent No. 5,010,233 to Henschen, et al. ("Henschen"), U.S. Patent No. 4,873,476 to Kurakake, et al. ("Kurakake") and U.S. Patent No. 6,049,327 to Walker, et al. ("Walker").

The Claim Rejections

Applicants respectfully traverse the rejections of the claims because Hassan cannot support the §102 rejections and no combination of the cited art cures the deficiencies of Hassan. A cited prior art reference anticipates a claimed invention under 35 U.S.C. §102 only if every element of the claimed invention is identically shown in the single reference, arranged as they are in the claims. MPEP §2131; *In re Bond*, 910 F.2d 831, 832, 15 USPQ 2d 1566, 1567 (Fed. Cir. 1990). Independent Claim 40 requires, *inter alia*, providing a sensor array that is fabricated upon a base, and mounting one or more sensor support integrated circuit devices upon the base. The claim further requires that the base includes an interconnect structure electrically connected to the sensor array and that the one or more sensor support integrated circuit devices are electrically connected to the interconnect structure. Hassan teaches no such combination or arrangement of elements.

Hassan does not teach a base upon which a sensor array is fabricated and upon which sensor support integrated circuits are mounted. Hassan is directed to methods for fabricating a monolithic sensor on a single silicon substrate. *See, e.g., Hassan*, col. 5, lines 35-49. For example:

"The electronic control and processing circuits are formed simultaneously by standard operations of deposition and etching using CMOS technology, some of the above steps being common with steps for the making of CMOS circuits and all the steps being in any case compatible with the making of CMOS circuits on the same substrate.

Hassan, col. 7, lines 7-12, with emphasis added (*see also*, col. 6, line 34-col. 7, line 6 for description of "some of the above steps"). The simultaneous formation of sensors and control circuitry on a single silicon substrate in Hassan describes the fabrication of a monolithic sensor. Moreover, in

describing the operation of its microsensors, Hassan confirms the monolithic nature of its device:

“The sequencer transmits row and column addresses to the row and column decoders (16 and 18) enabling point-by-point access to the pressure microsensors of the matrix 12. The electrical signal coming from a microsensor addressed by these decoders is transmitted to an output of the monolithic sensor through the output stage 20.”

Hassan, col. 5, lines 35-49. Thus, the output of Hassan’s *monolithic sensor* is explicitly provided by output stage 20. Consequently, the output stage is necessarily part of the monolithic sensor.

In view of the monolithic nature of Hassan’s sensor device, the suggestion that Hassan’s control electronics are mounted rather than fabricated is erroneous. An object is mounted by attaching it to a base. See Merriam-Webster Unabridged Dictionary. As shown above, Hassan’s control electronics are fabricated simultaneously and on the same silicon substrate with the microsensors. To anticipate the step of mounting recited in claim 40, Hassan must teach or suggest that the control electronics are first detached from the microsensor array and then reattached to the microsensor array. However, Hassan describes no such detachment and reattachment.

For at least the reasons provided, the §102 rejections in the present Application are unsupported by the cited references and the rejections are improper. Furthermore, the §103 rejections are also improper because none of the cited art cures the deficiencies of Hassan. Therefore, Applicants respectfully request withdrawal of all claim rejections in the present Application.

The Claim Objections

In the Office Action, the Examiner objected to claims 59-67 as being dependent upon a rejected base claim. The Examiner did note, however, that these claims would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. Accordingly, Applicants have amended claim 59 to include all limitations of claim 40. Each of claims 60-67 ultimately depend from claim 59. Therefore, Applicants respectfully submit that claims 59-67 are in condition for allowance, even if the Examiner’s position on the outstanding rejections is maintained.

Conclusion

All objections and rejections having been addressed, and in view of the foregoing, it is respectfully submitted that all claims of the present application are believed to be in form for allowance, and such action is hereby solicited. The Examiner is kindly requested to contact the undersigned at the telephone number listed below if any points remain in issue which may be best resolved through a personal or telephone interview.

Respectfully submitted,
PILLSBURY WINTHROP LLP

Date: February 12, 2007.

By: 

David A. Jakopin, Reg. No. 32,995
Tel. No.: (650) 233-4790
Fax No.: (650) 233-4545